COMPLIANT MECHANISMS

BRIGHAM YOUNG UNIVERSITY

CENTER

The objective of the Compliant Mechanisms Center is to help rapidly move the design of a wide variety of compliant mechanisms into industry. A compliant mechanism transfers or transforms motion, force, or energy, but, unlike rigid-link mechanisms (such as traditional pliers), compliant mechanisms gain at least some of their mobility from the deflection of flexible members rather than from movable joints only. During its final year in the program, the Center focused its efforts on the successful completion of projects aimed at finalizing licenses and patent applications.

ACCOMPLISHMENTS

By reducing the number of parts, reducing or eliminating the need for lubrication, reducing weight and easing miniaturization, the use of innovative compliant mechanisms can give companies a significant advantage in the marketplace over traditionally designed products.

The Center has designed and tested many compliant mechanisms in partnership with industry ranging from exercise and athletic equipment components, electric switches, clutches and transmissions, and prosthetics. During the 5 year life of the Center, the team has filed 15 patents and 9 of them have been issued.

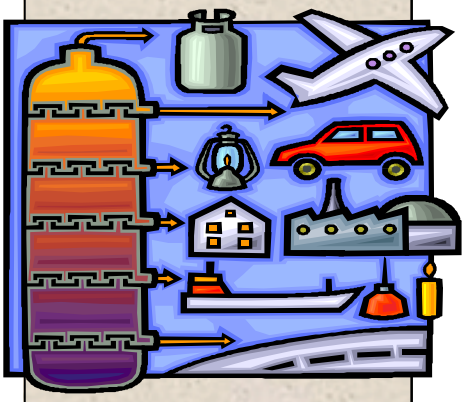
TECHNOLOGY

The range of technologies developed by the Center can be categorized under Advanced Bicycle components, Power Transmissions, Force Displacement Systems, Bistable Mechanisms and Microelectromechanical Systems (MEMS). Utah companies such as ATL, Inc., and Happy Jack, Inc. have benefited from the Center's work.

THINK TANK

What if there was...

A way to dramatically simplify the design of mechanical components to reduce cost, complexity, weight and the need for lubrication?



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